

shipping June 6

Work Order ID 145058

145058

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Monday, May 02, 2016 3:49:21 PM

Item ID: D145-762-013 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube with Standard Wearplates Fits LH or RH
 Start Date: 5/30/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 6/6/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: dm Date: 16/05/03 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
IIN-D117-762	E

100	DOCUMENT CONTROL	0.00	DAS 8 9-89	MAY 19 2016					
100									
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D145-762-013 CHG004								

110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									

120	QC4- 100% Inspect kits for completeness	0.03							
120									
QC	Memo								
Quality Control									

DART aerospace		HAWKESBURY ON CANADA M5C 1K7 TEL: 519-332-5200 www.dart-aero.com	
PATENT	US #5735484 / CA #2222184 / EURO #0828655	Q#C	CHG004
P/N	D145-762-043	SIC	SR01853SE
DESC.	Replacement STD Skidtube	SIC	DSI 9731-upgrade
LOT	B145504	SIC	
MODEL	BK117 C2	SIC	
TC APPROVAL 4-09-89		MADE IN CANADA	

DAS
28
9-89
16/5/19

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																							
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :	
Misidentified ☐	Past Due ☐																																																														

Work Order ID 145058***145058***

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Monday, May 02, 2016 3:49:21 PM

Item ID: D145-762-013 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Skidtube with Standard Wearplates Fits LH or RH
Start Date: 5/30/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/6/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D145-762-013								
	Location: _____								
		<i>Sold</i>							
140	QC21- Final Inspection - Work Order Release	0.10							
140									
QC	Memo	0.10							
Quality Control									

SH 16/5/19

16/5/24

SH 16/5/19

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

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Work Order ID: 145058

145058

Parent Item: D145-762-013

D145-762-013

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 5/30/2016

Required Date: 6/6/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 13.04.24 NEW ISSUE DD VERF:JLM IPP REV:B
13.11.14 AS PER IIN REV.C DD VERF:JLM IPP REV:C 14.11.24 as
per ecn14-654/chg003 DD VERF:JLM IPP REV:D 15.06.11 IIN REV.D
DD VERF:JLM IPP REV:E 16.02.05 IIN REV.E (ecn16-514)
DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D145-762-043		Manufactured	No			110	Each	2.0000	1	1			DAS 6 27 9-89
D145-762-043									**				DAS 6 27 9-89
Replacement Std Skidtube													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FG081				2					
				135004				1					
				135005				1					
D145-762-053		Manufactured	No			110	Each	0.0000	1	1			DAS 6 27 9-89
D145-762-053									**				DAS 6 27 9-89
Replacement Wearplates for Standard Skidtubes Fit LH or RH													
AN6C52A		Purchased	No			110	Each	47.0000	2	2			DAS 6 27 9-89
AN6C52A									**				DAS 6 27 9-89
BOLT													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST333				47					
				m134535				47					
D5300-1		Manufactured	No			110	Each	30.0000	2	2			DAS 6 27 9-89
D5300-1									**				DAS 6 27 9-89
GHL Bushing													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST162				30					
				141838				30					

MAY 19 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER :									

Picklist Print

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Work Order ID: 145058

145058

Parent Item: D145-762-013

D145-762-013

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 5/30/2016

Required Date: 6/6/2016

Start Qty: 1.00

Required Qty: 1.00

D5301-1

Manufactured No

110

Each

30.0000

1

1

DAS
6
27
9-89

D5301-1

GHL Plug

DAS
28
9-89

N
A *mf*
16-5-19

Location

Loc Qty

Loc Code

ST162

30

141839

30

MS21043-6

Purchased No

110

Each

75.0000

2

2

MS21043-6

NUT

DAS
28
9-89

N
A *mf*
16-5-19

Location

Loc Qty

Loc Code

FG

20

103693

20

FP001

29

m134365

29

ST302

26

m134557

26

DAS
27
9-89

DAS
6
9-89

MAY 19 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Work Order ID 145058

145058

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Monday, May 02, 2016 3:49:21 PM

Item ID: D145-762-013

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Skidtube with Standard Wearplates Fits LH or RH

Stop *NS2*

Start Date: 5/30/2016 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 6/6/2016 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: RM Date: 16/05/03 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN-D117-762	E								
100		0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork Photocopy bluefile & type labels per FPP D145-762-013 CH0005									
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.03							
120									
QC	Memo	0.03							
Quality Control									

MAY 19 2016

MAY 19 2016

DAC
3
9-00

MAY 19 2016

5.2 D145-762-013/-113 Skidtube Parts List

Item	Qty -013	Qty -043	Qty -053	Qty -113	Qty -153	Part Number	Description
	X					D145-762-013	SKIDTUBE WITH STD WEARPLATES
	1	X		1		D145-762-043	REPLACEMENT STD SKIDTUBE
	1		X			D145-762-053	REPLACEMENT WEARPLATES (STD SKIDTUBES)
				X		D145-762-113	SKIDTUBE WITH TRAINING WEARPLATES
				1	X	D145-762-153	REPLACEMENT TRAINING WEARPLATES (STD SKIDTUBE)
101		1				D4680-041	SKIDTUBE ASSEMBLY
102	2			2		**L321M1024101 OR **B321M1026101	SKID SHOE (REF ONLY)
103	8			8		**BRSP96/25-SK-WS-1 TEILIG OR **BRSP98/25-SK-WS-1 TEILIG OR **01618266098	CLAMP (REF ONLY)
104	8			8		**N/A	OEM BOLT (REF ONLY)
105	8			8		**N/A	OEM LOCKING WASHER (REF ONLY)
106	8			8		**N/A	OEM WASHER (REF ONLY)
110A		1				*D2965	CAP
110B		1				*D2965-3	CAP
111		4				***AELS-1032-225	INSERT
112		2				*AN3C5A	BOLT
113		2				*NAS1149C0332R	WASHER (OR AN960C10L)
114		2				*AN526C1032	SCREW
120A			1			D4682-041	WEARPLATE
120B			1			D4682-043	WEARPLATE
120C			1			D4682-7	WEARPLATE
121A					1	D4769-041	WEARPLATE
121B					1	D4773-041	WEARPLATE
121C					1	D4771-041	WEARPLATE
122			12		12	D4764-1	BUSHING
123			2		2	AN4C42A	BOLT
124			4		4	AN4C43A	BOLT
125			6		6	MS21043-4	NUT
130		3				*AELS-1032-130	INSERT
131		3				*AN3C4A	BOLT
132		3				*NAS1149C0332R	WASHER (AN960C10L)
150	2			2		AN6C52A	BOLT
151	2			2		D5300-1	GHL BUSHING
152	2			2		D5301-1	GHL PLUG
153	2			2		MS21043-6	NUT

* PART IS INCLUDED WITH D4680-041 STD SKIDTUBE ASSEMBLY

** TO BE SUPPLIED BY CUSTOMER, LISTED AS REFERENCE ONLY

*** DENOTES PART IS INCLUDED WITH ASSEMBLY ABOVE